

Claims

Side A

[c1] What is claimed is:

1. A structure for mounting a circuit board to a housing of a data processing device, comprising:
a mounting post secured to the circuit board and having a groove formed on outer surface thereof; and
a retaining unit provided on a surface of the housing, the retaining unit having a slot with an open end for receiving the mounting post through the groove along a direction parallel to the surface of the housing;
whereby the circuit board is inserted into the housing through the cooperation of the mounting post and the retaining unit.
2. The structure of claim 1, further comprising a stopper provided on the housing of the data processing device for stopping the circuit board from moving out of the housing along the direction parallel to the surface of the housing when the mounting post is received in the retaining unit.
3. The structure of claim 1, wherein the housing of the data processing device, the retaining unit and the mounting post are made of metal.
4. The structure of claim 1, wherein the retaining unit is integrally formed with the housing.
5. The structure of claim 2, wherein the stopper comprises a moveable rod and a spring, the moveable rod being moveable between a first position and a second position through the elasticity of the spring; when the moveable rod is in the first position, the moveable rod stops the circuit board to prevent the mounting post being released from the retaining unit; and when the moveable rod is in the second position, the moveable rod does not stop the circuit board so that the mounting post is free to be released from the retaining unit.
6. The structure of claim 1, wherein the circuit board has a throughhole for receiving one end of the mounting post and the mounting post is secured to the circuit board at the throughhole.
7. The structure of claim 3, wherein the retaining unit is stamped out from the

housing.

[c8] 8.The structure of claim 6, wherein an inner portion of the mounting post is cut into a threaded hole communicating with the throughhole in the circuit board.

[c9] 9.A structure for mounting a circuit board to a housing of a data processing device, comprising:

a mounting post secured the circuit board and having a groove formed on the outer surface thereof;

a retaining unit provided on a surface of the housing, the retaining unit having a slot with an open end for receiving the mounting post through the groove along a direction parallel to the surface of the housing; whereby the circuit board is inserted into the housing through the cooperation of the mounting post and the retaining unit; and

a stopper provided on the housing of the data processing device moveable between a first position and a second position; wherein when the stopper is in the first position, the stopper stops the circuit board from moving out of the housing along the direction parallel to the surface of the housing; and when the stopper is in the second position, the stopper allows the circuit board to move out of the housing along the direction parallel to the surface of the housing.

[c10] 10.The structure of claim 9, wherein the housing of the data processing device, the retaining unit and the mounting post are made of metal.

[c11] 11.The structure of claim 9, wherein the circuit board has a throughhole for receiving one end of the mounting post and the mounting post is secured to the circuit board at the throughhole.

[c12] 12.The structure of claim 10, wherein the retaining unit is stamped out from the housing.

[c13] 13.The structure of claim 11, wherein an inner portion of the mounting post is cut into a threaded hole communicating with the throughhole in the circuit board.

[c14] 14.A data processing device, comprising:

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a circuit board;
a plurality of mounting posts secured to the circuit board and each having a groove formed on the outer surface thereof;
a housing having a surface provided with a plurality of retaining units, each retaining unit having a slot with an open end for receiving the mounting post through each of the groove along a direction parallel to the surface of the housing; whereby the circuit board is inserted into the housing through the cooperation of the mounting posts and the retaining units; and
a stopper provided on the housing of the data processing device, the stopper having a moveable rod moveable between a first position and a second position; wherein when the moveable rod is in the first position, the moveable rod stops the circuit board from moving out of the housing along the direction parallel to the surface of the housing; and when the moveable rod is in the second position, the moveable rod allows the circuit board to move out of the housing along the direction parallel to the surface of the housing.

[c15] 15. The data processing device of claim 14, wherein the circuit board has a plurality of throughholes for receiving one end of each mounting post respectively.

[c16] 16. The data processing device of claim 15, wherein an inner portion of each mounting post is cut into a threaded hole communicating with each of the throughholes in the circuit board.

[c17] 17. A data processing device, comprising:
a circuit board;
a plurality of mounting posts secured to the circuit board and each having a groove formed on the outer surface thereof; and
a housing having a surface provided with a plurality of retaining units, each retaining unit having a slot with an open end for receiving the mounting post through each of the grooves along a direction parallel to the surface of the housing;
whereby the circuit board is inserted into the housing through the cooperation of the mounting posts and the retaining units.

[c18]

18.The data processing device of claim 17, further comprising a stopper provided on the housing of the data processing device, the stopper having a moveable rod moveable between a first position and a second position; wherein when the moveable rod is in the first position, the moveable rod stops the circuit board from moving out of the housing along the direction parallel to the surface of the housing; and when the moveable rod is in the second position, the moveable rod allows the circuit board to move out of the housing along the direction parallel to the surface of the housing.

[c19]

19.The data processing device of claim 17, wherein the housing, the retaining units and the mounting posts are made of metal.

Conc
Sectn 1